



Clean Energy Future Committee Meeting Minutes

Approved at the 8-28-2020 meeting

June 26, 2020

8:00 – 9:30 a.m.

Virtual Meeting – Hosted on Zoom

Members present: Jim DiTullio, Ryan Katofsky, Ken Pruitt, Dave Levy, Marc Breslow, Emily Sullivan, Coralie Cooper, Shelly Dein, Dan Amstutz, Adam Chapdelaine, Pasi Miettinen, Nellie Aikenhead

Members not present: Dan Dunn

The meeting convened at 8:03 a.m.

Agenda Item 1: Video Meeting Procedures

Mr. Pruitt read a set of prepared remarks explaining the procedures that the Committee would follow to hold a virtual meeting. Governor Baker signed an Executive Order in response to the COVID-19 pandemic allowing virtual meetings, which suspended the usual Open Meeting Law requirement that a quorum of committee members be physically present in order to hold an official committee meeting.

Agenda Item 2: Meeting Minutes

Mr. Pruitt displayed the Minutes from the May 22, 2020 CEFC meeting with several edits suggested by Committee members prior to the Meeting. Mr. Pruitt then reviewed all changes with the Committee members asking for any objections to the edits by Committee members. No objections were stated. Mr. Pruitt asked for any additional comments, of which were none. A motion to approve the minutes was made by Mr. Breslow and seconded by Ms. Dein. A roll call vote was held and the Minutes were unanimously approved.

Agenda Item 3: Review of Remaining Zoning and Permitting Greenhouse Mitigation Measures

Mr. Pruitt noted that a small working group of CEFC and Arlington Redevelopment Board members had reviewed the Zoning and Permitting Measures recommended by the Metropolitan Area Planning Council. These measures were labeled with "Action Numbers" on a table sent to the CEFC. Only Action Numbers 10 and 11 were left for Committee members to review.

Action Number 10

This measure would promote the planting of more trees on private property within 20 feet of the sidewalk. Ms. Dein and Mr. Katofsky questioned that distance, asking why it would be a problem for trees to be farther away from the sidewalk. Mr. Amstutz noted that the roots of trees planted too close to sidewalks could damage sidewalks. He also asked why this measure was included as a Zoning and Permitting measure. Mr. Pruitt noted that it had come up in the working group for such measures, but agreed it is not really a zoning or permitting measure and would likely be moved to a different section of the Net Zero Plan. Mr. Chapdelaine noted that “within the Town setback area” could be used instead of a 20-foot limitation. He also said that many attempts have been made to examine this issue, especially in East Arlington. Mr. Pruitt asked how prescriptive the Town should be in terms of where trees should be planted. Mr. Chapdelaine noted that perhaps there should be two measures: one promoting trees near sidewalks, the other promoting trees anywhere on a property. Ms. Dein agreed with Mr. Chapdelaine’s observation. She also asked whether more tree preservation should be required in zoning regulations for properties being developed. Mr. Chapdelaine noted that there is an existing tree-preservation bylaw that goes a long way in preserving trees. Mr. Amstutz noted this was written to help create shade on streets and sidewalks. He also noted that in some localities, street space is reclaimed, including through bump-outs, to plant additional trees to create shade and provide traffic calming. The Committee agreed to move on to the next measure without finalizing the exact language of this one at this time.

Action Number 11

This measure would “Promote and, where possible, incentivize the installation of parking canopy solar arrays on private parking lots.” Mr. Katofsky noted that there is a “by right” option to install solar throughout town in the Zoning Bylaw. Mr. Levy asked if this “by right” ability includes the ability to build carports with solar. Mr. Amstutz asked if this measure was intended to cover residential (driveways) or just commercial parking. Mr. Levy said this measure was intended to cover both residential and commercial parking lots or driveways. Mr. Pruitt wondered if this measure should cover both or whether we should create an additional measure specifically for residential driveways. Mr. Amstutz questioned the economies of scale of solar installations on carports for residential driveways. Mr. Pruitt noted he would strip out incentivize vs. educate.

Agenda Item 4: Discuss Greenhouse Gas Inventory Findings

Mr. Pruitt noted he emailed the greenhouse gas (GHG) inventory findings to the Committee via email and noted the tool for measuring it, created by the Metropolitan Area Planning Council, is now available to anyone. Mr. Pruitt said the baseline year is 2017. He also noted that Arlington had the lowest per capita GHG emissions of all towns that had used MAPC’s inventory tool and 2017 data. He said that most of the necessary data could be obtained from various publicly-available data sources to update the GHG inventory in the future as often as the Town wants. Mr. Pruitt noted that the two biggest contributors to greenhouse gas emissions in Arlington were buildings and transportation. He said that municipal buildings plus municipal vehicles totaled under 3% of Arlington’s GHG emissions in 2017.

Agenda Item 5: Net Zero Planning Timeline

Mr. Pruitt displayed the timeline for producing the Net Zero Plan, working with MAPC. He displayed a list of upcoming milestones along with a list of key partners in this process that would be assisting the effort. Ms. Dein observed that thus far as plan initiatives have been reviewed, equity and inclusiveness have not been considered in the review. Ms. Dein wondered if disenfranchised communities should be counseled in this discussion. Mr. Pruitt agreed with the importance of this issue. He noted that when the discussions with stakeholders commence in July and August, that equity would need to be at the forefront of those discussions. Mr. Katofsky and Ms. Cooper agreed with this sentiment. Ms. Cooper also suggested having a guest speaker from an equity organization help discuss a framework for such an effort.

Mr. Pruitt noted the goal is still to have a finalized plan by the end of the calendar year. There is still a good deal of work to do. Two areas in particular are of emphasis: In late July or early August, the Committee will need to take a fresh look at the revised set of GHG mitigation measures to determine what stays in or what gets condensed, combined, etc. The other area of importance will be public outreach, especially when a draft of the plan is produced in September. The Committee members will need to help produce the draft and seek public input. Mr. Pruitt noted he will be reaching out to the Committee members for assistance on these two efforts over the summer months and asked for continued commitment from the Committee.

Agenda Item 6: Discussion of Various Town Meeting Warrant Articles

Mr. Pruitt noted that Ms. Dein had asked to discuss various Articles that had been on the June 2020 Town Meeting Warrant. The Articles were:

- Fossil Fuel Infrastructure
- End Single Family Zoning
- Bike Share Program
- Historic Districts – encourage energy efficiency / sustainable energy

Mr. Pruitt asked Mr. Pat Hanlon, a Town Meeting Member and key proponent of the Fossil Fuel Infrastructure article, to discuss the articles. Mr. Hanlon spoke about how the COVID epidemic resulted in a postponement of debate on almost all articles that were non-financial in nature, until a special Town Meeting likely to be held in the fall. The timing of a meeting will depend on when the Town has a better answer on how much State Aid will be forthcoming to the Town. Mr. Hanlon noted the Attorney General will give a ruling on the Brookline fossil fuel bylaw, after which Arlington's draft bylaw was modeled, sometime in July. Mr. Hanlon also noted that Article 69, which is financial in nature, did pass Town Meeting. That Article authorized the expenditure of \$20,000 to pay Arlington's share of a bikeshare program along with other cities and towns that use the same system.

Mr. Hanlon then described the warrant article that would encourage clean energy technology to be adopted more widely for properties within the Historic District

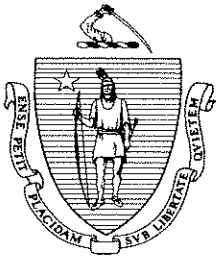
Commission. Mr. Pruitt noted Ms. Aikenhead had done some research for the Committee on what the Historic Districts Commission (HDC) has approved in the past. Mr. Pruitt noted that there is sometimes tension between historic preservation and energy efficiency and renewable energy projects, and there will be an on-going discussion to discuss solutions. Mr. Hanlon noted that Sustainable Arlington supported this warrant article.

The Meeting was adjourned at 9:20am. The next meeting will occur on July 24, 2020.

Submitted by Dave Levy.

Attachments:

- 1) Governor Charles Baker's 3/12/2020 Executive Order Suspending Certain Provisions of the Open Meeting Law
- 2) Meeting minutes from 5/22/2020
- 3) Draft Zoning and Permitting Measures
- 4) Greenhouse Gas Inventory Findings
- 5) Net Zero Planning Timeline



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CHARLES D. BAKER
GOVERNOR

KARYN E. POLITO
LIEUTENANT GOVERNOR

**ORDER SUSPENDING CERTAIN PROVISIONS
OF THE OPEN MEETING LAW, G. L. c. 30A, § 20**

WHEREAS, on March 10, 2020, I, Charles D. Baker, Governor of the Commonwealth of Massachusetts, acting pursuant to the powers provided by Chapter 639 of the Acts of 1950 and Section 2A of Chapter 17 of the General Laws, declared that there now exists in the Commonwealth of Massachusetts a state of emergency due to the outbreak of the 2019 novel Coronavirus ("COVID-19"); and

WHEREAS, many important functions of State and Local Government are executed by "public bodies," as that term is defined in G. L. c. 30A, § 18, in meetings that are open to the public, consistent with the requirements of law and sound public policy and in order to ensure active public engagement with, contribution to, and oversight of the functions of government; and

WHEREAS, both the Federal Centers for Disease Control and Prevention ("CDC") and the Massachusetts Department of Public Health ("DPH") have advised residents to take extra measures to put distance between themselves and other people to further reduce the risk of being exposed to COVID-19. Additionally, the CDC and DPH have advised high-risk individuals, including people over the age of 60, anyone with underlying health conditions or a weakened immune system, and pregnant women, to avoid large gatherings.

WHEREAS, sections 7, 8, and 8A of Chapter 639 of the Acts of 1950 authorize the Governor, during the effective period of a declared emergency, to exercise authority over public assemblages as necessary to protect the health and safety of persons; and

WHEREAS, low-cost telephone, social media, and other internet-based technologies are currently available that will permit the convening of a public body through virtual means and allow real-time public access to the activities of the public body; and

WHEREAS section 20 of chapter 30A and implementing regulations issued by the Attorney General currently authorize remote participation by members of a public body, subject to certain limitations;

NOW THEREFORE, I hereby order the following:

(1) A public body, as defined in section 18 of chapter 30A of the General Laws, is hereby relieved from the requirement of section 20 of chapter 30A that it conduct its meetings in a public place that is open and physically accessible to the public, provided that the public body makes provision to ensure public access to the deliberations of the public body for interested members of the public through adequate, alternative means.

Adequate, alternative means of public access shall mean measures that provide transparency and permit timely and effective public access to the deliberations of the public body. Such means may include, without limitation, providing public access through telephone, internet, or satellite enabled audio or video conferencing or any other technology that enables the public to clearly follow the proceedings of the public body while those activities are occurring. Where allowance for active, real-time participation by members of the public is a specific requirement of a general or special law or regulation, or a local ordinance or by-law, pursuant to which the proceeding is conducted, any alternative means of public access must provide for such participation.

A municipal public body that for reasons of economic hardship and despite best efforts is unable to provide alternative means of public access that will enable the public to follow the proceedings of the municipal public body as those activities are occurring in real time may instead post on its municipal website a full and complete transcript, recording, or other comprehensive record of the proceedings as soon as practicable upon conclusion of the proceedings. This paragraph shall not apply to proceedings that are conducted pursuant to a general or special law or regulation, or a local ordinance or by-law, that requires allowance for active participation by members of the public.

A public body must offer its selected alternative means of access to its proceedings without subscription, toll, or similar charge to the public.

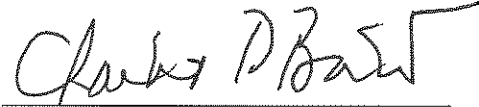
(2) Public bodies are hereby authorized to allow remote participation by all members in any meeting of the public body. The requirement that a quorum of the body and the chair be physically present at a specified meeting location, as provided in G. L. c. 30A, § 20(d) and in 940 CMR 29.10(4)(b), is hereby suspended.

(3) A public body that elects to conduct its proceedings under the relief provided in sections (1) or (2) above shall ensure that any party entitled or required to appear before it shall be able to do so through remote means, as if the party were a member of the public body and participating remotely as provided in section (2).

(4) All other provisions of sections 18 to 25 of chapter 30A and the Attorney General's implementing regulations shall otherwise remain unchanged and fully applicable to the activities of public bodies.

This Order is effective immediately and shall remain in effect until rescinded or until the State of Emergency is terminated, whichever happens first.

Given in Boston at 6:40 PM this 12th day of
March, two thousand and twenty.

A handwritten signature in dark ink, appearing to read "Charles D. Baker". The signature is written in a cursive style with a horizontal line underneath it.

CHARLES D. BAKER
GOVERNOR
Commonwealth of Massachusetts



Clean Energy Future Committee Meeting Minutes

Draft – for approval at the 6-26-2020 meeting

May 22, 2020

8:00 – 9:30 a.m.

Virtual Meeting – Hosted on Zoom

Members present: Jim DiTullio, Ryan Katofsky, Ken Pruitt, Dave Levy, Emily Sullivan, Coralie Cooper, Shelly Dein, Dan Amstutz, Nellie Aikenhead, Shelley Dein, Marc Breslow, Pasi Miettinen,

Members not present: Dan Dunn, Adam Chapdelaine

The meeting convened at 8:04 a.m.

Video Meeting Procedures

Mr. Pruitt read a set of prepared remarks explaining the procedures that the Committee would follow to hold a virtual meeting. Governor Baker signed an Executive Order in response to the COVID-19 pandemic allowing virtual meetings, which suspended the usual Open Meeting Law requirement that a quorum of committee members be physically present in order to hold an official committee meeting.

Meeting Minutes

Mr. Pruitt noted edits to the Minutes from the April 24, 2020 Meeting made by himself, Ms. Dein and Mr. Amstutz and went through the updated Minutes to the entire Committee. Mr. Katofsky motioned to approve the Minutes. Ms. Dein seconded the motion. A roll call vote was held to approve the Minutes from April 24, 2020. The Committee unanimously approved the Minutes.

Agenda Item 1: Review Zoning and Permitting Measures

Mr. Pruitt noted the original list of recommended Zoning and Permitting-related greenhouse gas mitigation measures came from the Metropolitan Area Planning Council (MAPC). Mr. Pruitt said a smaller working group including three members from the Clean Energy Future Committee and two from the Arlington Redevelopment Board reviewed the list and made edits, additions and subtractions. Mr. Pruitt then reminded the Committee that all greenhouse gas mitigation measures discussed during this meeting and previous meetings would be reviewed again by the Committee before the Net Zero Plan is finalized.

Action Number 9: Mr. Pruitt started the discussion with Action Number 9, Review Whether there are unnecessary barriers to energy efficiency and renewable energy

technologies in Historic Districts, to accommodate Ms. Aikenhead's schedule (she needed to leave the meeting early). Ms. Aikenhead, a member not just of the CEFC but also the Historic District Commission (HDC), noted she was still in the process of researching what the HDC has approved vs. denied in the past, and offered to come back with more substantive research findings in a subsequent meeting. Mr. Breslow asked if the Historic District Commission could revise its Design Guidelines to make it easier for owners to undertake projects that improve energy efficiency and produce renewable energy. Jenny Raitt, Director of Planning and Community Development, and a member of the working group that reviewed MAPC's Zoning and Permitting measures, noted that the sub-committee reviewed the Design Guidelines and wondered if everyone could review them in more depth. Ms. Aikenhead offered to review the Guideline proposals in advance of the next CEFC meeting. Ms. Dein noted that in other Historic Districts in other towns, getting approval for windows that were truly insulated has been difficult. Mr. Katofsky noted his support for making the language of Action Number 9 more action oriented and finding a way to make allow Arlington's Historic Districts to remain historic but also help residents achieve their energy efficiency and renewable energy goals.

Action Number 1: Mr. Pruitt then turned to Action Number 1, Require all new construction requiring a Special Permit (which by definition only includes commercial buildings and residential buildings with at least six units) to include solar photovoltaic (PV) and/or solar thermal on a minimum of 50% of roof area (except if infeasible). Mr. Katofsky asked: What triggers a special permit? Ms. Raitt explained and noted that this measure would touch various permitting processes. Mr. Katofsky wondered if the measure should be made broader, to apply to all new buildings even if they didn't require a Special Permit. Mr. Katofsky also asked what would happen if an owner elected to install solar thermal, but demand for hot water was insufficient to warrant solar thermal panels covering 50% of roof area. Mr. Pruitt explained that the wording of the measure would require the remaining space up to 50% to be filled with solar PV. Mr. Katofsky recommended that the term "infeasible" be defined as much as possible.

Action Number 2: Mr. Pruitt then moved to Action Number 2, Provide training opportunities for Town departments, boards and committees, as well as developers, on a list of building energy performance standards (not listed in these minutes for sake of brevity). Mr. Amstutz commented that if the Commonwealth had training or education materials, the Town should leverage such training materials rather than creating them. Mr. Pruitt agreed and said Arlington may also be able to get grants for training as well. Ms. Dein asked whether the measure could start with "Support" instead of "Provide," so that the Town was not responsible for providing its own training, but instead could take advantage of training already provided by others, since that would place a less definitive demand on the Town. Mr. Pruitt made that change without objection from the Committee.

Action Number 3: Mr. Pruitt then moved to Action Number 3, whether the Town should establish a rental licensing program that would include requirements for energy efficiency. Ms. Dein asked whether there would be adverse consequences of requiring such a license, such as property owners turning rentals into condos to avoid licensing requirements. Mr. Amstutz asked what the other benefits (aside from those which are

energy-related) would be and wondered why a net zero plan would want to use this tool. Mr. Pruitt said that a number of municipalities, including Somerville, had rental licensing requirements that include energy efficiency requirements, specifically to address the “split incentive” inherent the landlord-tenant relationship (landlords typically need to pay for capital improvements, but it is typically the tenants who reap the benefits of those improvements in the form of lower energy costs). Ms. Raitt, responding to Mr. Amstutz, noted that several plans Town committees are working on address various initiatives that overlap or should be integrated. She also recommended that there be edits to this Action measure. Ms. Dein suggested the word “Consider” at the beginning of the measure so that it would begin as “Consider requiring.” Mr. Pruitt agreed to make this change, but also noted that final word choices are not required at this time and more opportunities for wording changes will be allowed later. Mr. Katofsky noted that this measure feels like a stick vs. a carrot and wondered if further incentives could be explored. Mr. Pruitt, without objection, said he would keep this measure in the list but acknowledged it will require further discussion and edits at a subsequent meeting.

Action Numbers 4 and 5: Mr. Pruitt then moved to Action Numbers 4 and 5 for a combined discussion. Measure 4 would allow reductions of height, setback and density requirements for energy efficiency and renewable energy retrofits of existing buildings. Measure 5 would allow, via Special Permit, full building foundation replacements to allow for existing homes to be made net zero energy. Mr. Katofsky voiced support for both measures. Ms. Cooper said both measures were discussed at length in the working group and voiced support for both Measures. Mr. Miettinen voiced his support and offered one small word change on changes to height. Ms. Dein asked a question about intent of the measures. Mr. Miettinen noted that various homes are on non-conforming lots because the non-conforming structures are grandfathered, so replacement is not possible. Further, it is cheaper to replace a home compared to renovating it with the existing foundation. Ms. Raitt recommended that language about building standards be made more generic here and throughout all measures in the list, along the lines of “equal or better standards” to avoid having the Net Zero Plan become dated.

Action Number 6: Mr. Pruitt then moved to Action Number 6, whether the Town should consider establishing a Chapter 40R Smart Growth Zoning Overlay District to allow for greater building density (and buildings with a lower carbon footprint) in certain areas of town. Ms. Raitt provided an overview of what Chapter 40R is and noted that the state can provide financial incentives to counteract the potential for increased expenses resulting from more development. Ms. Cooper expressed support for this measure, noting that increasing density can substantially decrease transportation-related greenhouse gas emissions and should help with overall efforts to become net-zero. Mr. Miettinen asked about consequences and wondered how this measure could be pushed through effectively. Mr. Pruitt acknowledged this question and said that step one was asking if the CEFC supported the concept and then next steps would occur with other Town boards and ultimately Town Meeting.

Action Number 7: Mr. Pruitt then moved to Action Number 7, Require all new apartment buildings to install a minimum number of electric vehicle charging stations. Mr. Breslow asked a question about the word “Fraction” in the draft measure. Mr. Pruitt explained

that there would be a minimum charging station in any apartment building and a rounding up concept (e.g. 2 stations for 7 parking spaces). Mr. Katofsky noted that “charging ports” should be used to make the concept more specific, since one “station” could charge two vehicles at the same time. Ms. Cooper noted that the working group had agreed to review the International Energy Conservation Code to see what it would require when it goes into effect in 2021. Mr. Pruitt said he did review that code and it only requires pre-wiring for charging stations, not the installation of any stations. He noted our measure would go further because it would require the installation of charging stations and not just making the parking area pre-wired. Ms. Dein asked that the Committee define “apartment” compared to “multifamily.” Ms. Raitt noted that “apartment building” is specifically defined in the Zoning Bylaw. Mr. Pruitt then asked if we should change the word to “multifamily” with six units or greater, and without objection offered to make that change. Ms. Dein expressed concern about the impact of this measure on affordable housing, where most unit residences will not have cars. Mr. Pruitt offered that a further drafting could have some exemption or alternatives for affordable housing.

Action Number 8: Mr. Pruitt then moved to Action Number 8, which would both promote solar installations and protect existing installations from shading from adjacent properties, via MGL chapter 40A section 9B. Mr. Pruitt noted details would be in a process following this effort. Ms. Dein offered an example of unintended consequences where a neighbor could install solar specifically to block the construction of a tall building nearby. Mr. Levy acknowledged Ms. Dein’s concerns but also voiced support for the measure and asked that the Committee further refine it. Without objection, Mr. Pruitt said he would leave the measure on the list for now.

Action Number 9 was discussed earlier in the meeting. The remaining Action Numbers 10 and 11 will be discussed at the next meeting.

Mr. Breslow motioned that the meeting be adjourned. Ms. Dein seconded the motion. A roll call vote was held. The Committee unanimously approved the motion to adjourn the meeting.

The Meeting ended at 9:30am. The next meeting will occur on June 26, 2020.

Submitted by Dave Levy.

Zoning and Permitting Measures				FEASIBILITY	
Action Number	Action Description	Notes	Type	Example	Source Link
1	Require all new commercial buildings and residential buildings with at least six units to include solar PV and/or solar thermal on a minimum of 50 percent of roof area. Allow for variances if solar is infeasible on a building. If solar PV or thermal is feasible on less than 50% of a roof, then the largest feasible percentage shall be required.	Need to define "feasible" and "infeasible." Infeasible could perhaps be defined as a) roof area that is shaded, b) roof area that due to architectural requirements could not support solar panels with proper orientation, or c) other constraints on a case-by-case basis that the ZBA considers so onerous or unworkable that it determines solar panels are infeasible on part of all of the roof area.			
2	Support training opportunities for Town departments, boards and committees, as well as developers, on LEED, Net Zero, Passive House and other high performance standards, HERS ratings, life safety benefits of Net Zero buildings, and energy modelling. Additionally, provide guidance to developers on permitting for Net Zero buildings.				
3	Consider requiring licensing for rental units (assuming the Town has, or could have, the authority for this) to include energy efficiency requirements for ongoing compliance. This measure helps to address existing buildings and should be paired with protections for renters.			Somerville; Boulder, CO	https://bouldercolorado.gov/plan-develop/rental-housing-licensing
4	Allow adjustments to height, setback and density requirements by Special Permit for energy efficiency and renewable energy installations at existing buildings including (but not limited to): insulation, solar PV, solar thermal, living roofs, other eco-roofs, energy storage, and air-source heat pump equipment. Such reductions must not be significantly detrimental to abutters.				
5	Allow the building of homes with new foundations on non-conforming residential lots that have an existing principal building as long as the resulting construction meets Net Zero, Passive House or substantially equivalent standards.				
6	Consider establishing a Chapter 40R Smart Growth Zoning Overlay District (which allows for potential state reimbursement for costs associated with additional school children under Chapter 40S) to allow for dense residential or mixed-use development. Include design guidelines that promote buildings that meet Zero Energy, Passive House or other measures consistent with this Net Zero Plan.				
7	Require all new multi-family buildings six units or greater to install a minimum of one electric vehicle charging port per five parking spaces. Minimum of one port. Additional ports rounded to the nearest five spaces. Consider including a variance or waiver provision for affordable housing developments where installation of EV charging may create a cost barrier and where demand for EV charging may be lower.	For example, 1-7 spaces: one port; 8-12 spaces: two ports.			
8	Adopt, via MGL c40A section 9B, exemptions from setback, building height, and roof and lot coverage restrictions for solar PV and solar thermal systems; and 2) consider adopting some or all solar access protections enumerated in the second paragraph of that law.	Concern was expressed about this second part - could a property owner install solar to block a planned adjacent building that would cast shade on the new solar panels? The CEFC wants to discuss this further.			

Zoning and Permitting Measures				FEASIBILITY	
Action Number	Action Description	Notes	Type	Example	Source Link
9	Review whether there are unnecessary barriers to energy efficiency and renewable energy technologies in Historic Districts, and if so, what changes to the Historic District Commissions Design Guidelines could remove those barriers.	Nellie Aikenhead offered to conduct research on what the HDC has approved vs. denied and report back to the CEFC for a more informed discussion. Note: some CEFC members expressed a desire for this measure to be more "action-oriented."			
10	Promote the planting of trees on private property within 20 feet of the sidewalk through Town programs that provide trees at no charge. Existing programs such as the Trees Please Fund administered by the DPW should be reviewed to determine whether enhancements could increase participation.	Not yet discussed by the CEFC.			
11	Promote and, where possible, incentivize the installation of parking canopy solar arrays on private parking lots.	Not yet discussed by the CEFC.			

Town of Arlington Greenhouse Gas Inventory

Produced using the *Community Greenhouse Gas Inventory Tool* (Version 4 - April 17, 2020)
produced by the Metropolitan Area Planning Council

Methodology: 2014 Global Protocol for Community-Scale Greenhouse Gas Inventories. Reporting level: BASIC. Developed by the World Resources Institute, C40 Cities Climate Leadership Group and ICLEI – Local Governments for Sustainability.

Baseline Year: 2017

Total emissions: 285,119 tons carbon dioxide equivalent (CO₂e)

Major sources: stationary energy (mostly buildings), transportation (2014 data) and waste.

Last GHG inventory: 2000 (1997 data). Emissions: 426,186 tons CO₂e, but methods not comparable.

Comparison to other municipalities using the same methodology and 2017 data

Arlington: 285,119 tons CO₂e. Population: 45,000. Per capita: 6.34 tons.

Melrose: 186,850 tons CO₂e. Population: 27,000. Per capita: 6.92 tons.

Winchester: 176,293 tons CO₂e. Population: 22,000. Per capita: 8.01 tons.

Natick: 328,088 tons CO₂e. Population: 36,000. Per capita: 9.11 tons.

Thanks to: Emily Sullivan, Jelena Popovic, Kristin Kelleher and Bee Jay Baatz for attending training and assisting with data entry.

Screenshot from Data Entry Tool

MassEnergyInsight Municipal Electricity and Natural Gas Consumption Data			
	Total Annual Electricity Consumption (kWh / Year)	Annual Natural Gas Consumption (therms / Year)	Annual Heating Oil Consumption (Gallons / Year)
Municipal Operations	8,293,975	637,899	1,606
Service Provider:	IOU	IOU	
If municipal facilities are enrolled in the CCA, which program rate are they are subscribed to?	N/A		

Optional Question Instructions:

1) If you **do** have community choice aggregation in your community, contact your community choice aggregation or retail electricity provider to obtain data on the annual electricity consumption for 2017 by rate (e.g. "Traditional", "5% Green", "50% Green", "100% Green") and by sector (e.g. "Residential" and "Commercial & Industrial"). The number of rates will vary from community to community. For example, some communities will have three residential rates while others will have four residential rates. If, for example, your community only has three residential rates, in the "Residential Rate 4" row select "No" in the "Include This Rate in Calculations?" column. For each rate, you will also need to obtain information from your community choice aggregation or retail provider on the percent of "Class I Voluntary RECs" associated with each rate. Enter the appropriate data in the table below.

2) If you **do not** have community choice aggregation in your community, skip this table.

Community Choice Electricity Consumption Data

Electricity Rate	Include This Rate in Calculations?	Total Annual Electricity Consumption (kWh / Year)	% of Class I Voluntary RECs
Residential Rate 1	Yes	133,142	0%
Residential Rate 2	Yes	25,201,849	5%
Residential Rate 3	Yes	105,572	50%
Residential Rate 4	Yes	417,116	100%
Total CCA Residential		25,857,679	
C&I Rate 1	Yes	29,690	0%
C&I Rate 2	Yes	1,479,470	5%
C&I Rate 3	Yes	1,515,269	50%
C&I Rate 4	Yes	4,858	100%
Total CCA Commercial & Industrial		3,029,287	
Total CCA Residential, Commercial & Industrial		28,886,966	

Mandatory Question Instructions:

1) If your electricity or gas is provided by a municipal utility, contact your municipal utility to obtain data on the annual electricity consumption and/or natural gas consumption for 2017 by sector (e.g. "Residential" and "Commercial & Industrial"). Enter the appropriate data in the table below.

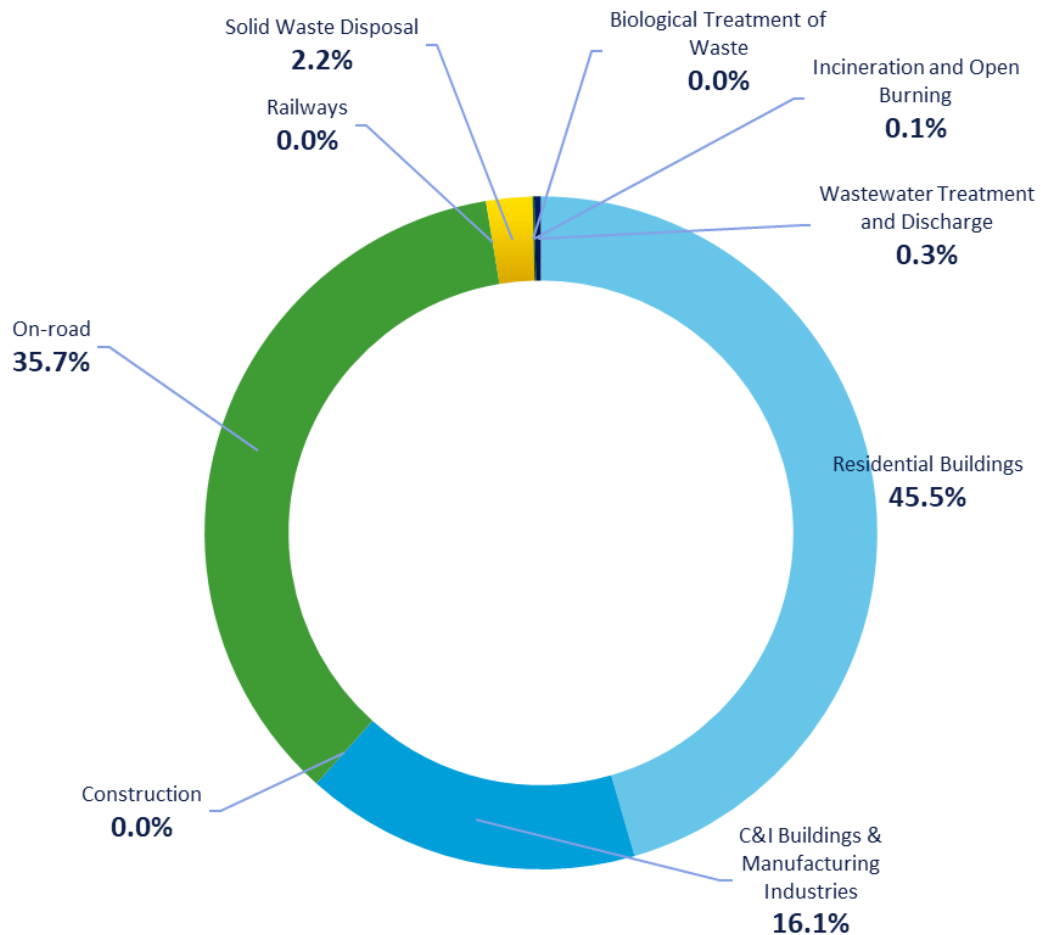
2) If you **do not have** a municipal utility in your community, skip this table.

Municipal Utility Electricity Consumption Data

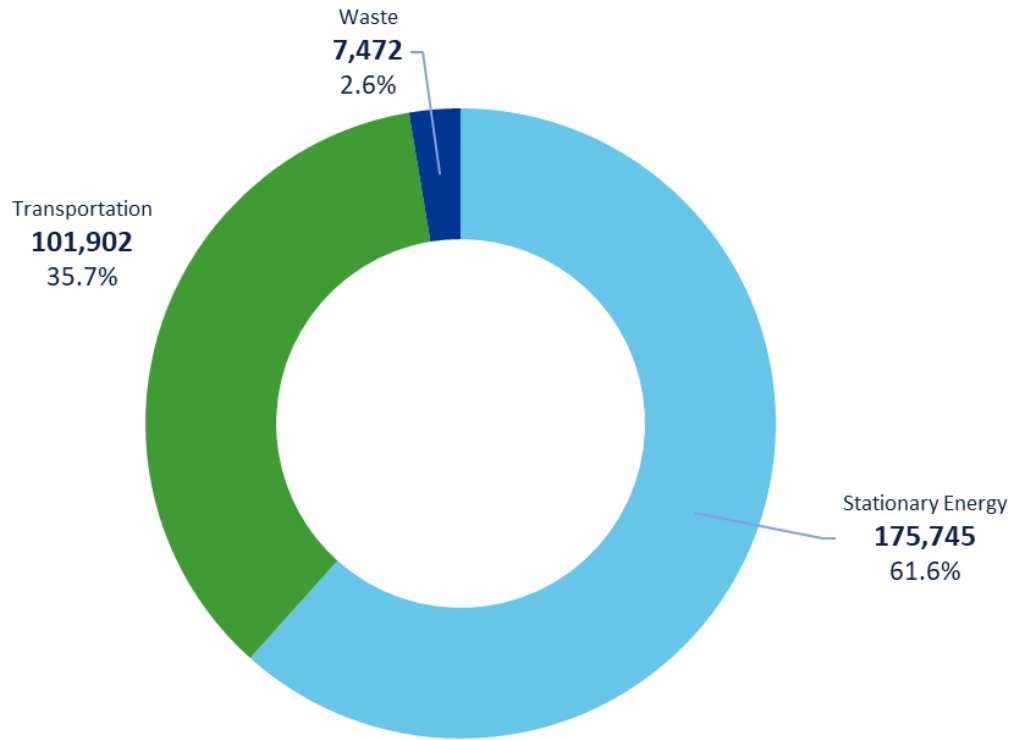
Sector	Total Annual Electricity Consumption (kWh / Year)	Total Natural Gas Consumption (therms / Year)
Residential	0	0
Commercial & Industrial	0	0
Total	0	0

Summary Charts

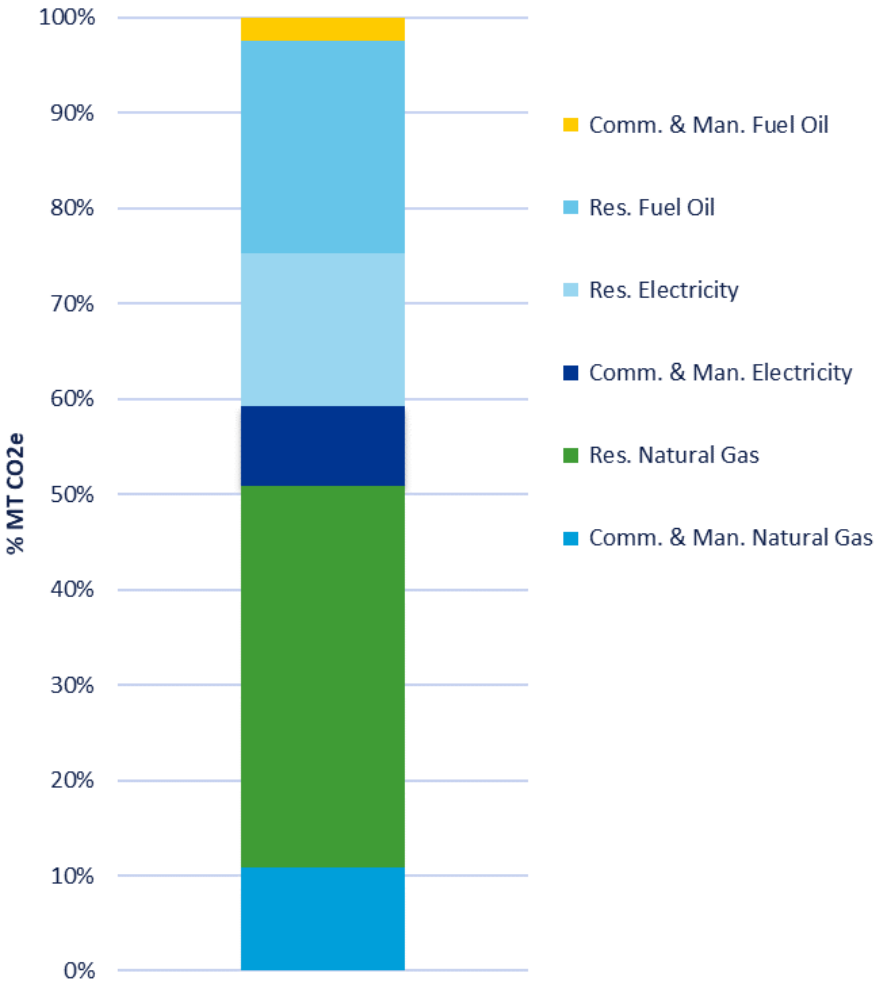
Percent of Total Community-wide Emissions by Subsector



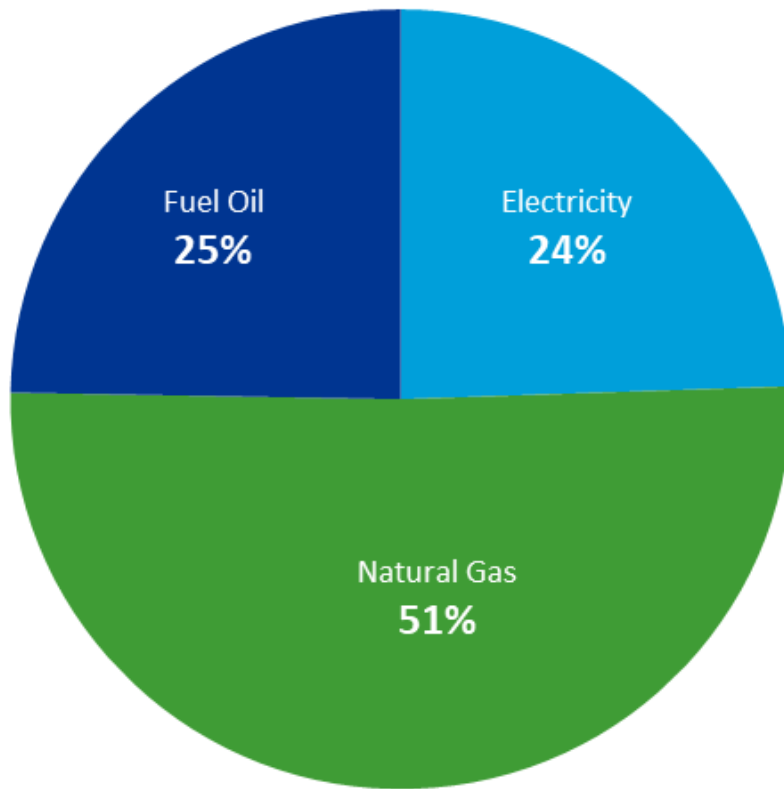
Community-wide Emissions (MT CO₂e) by Sector



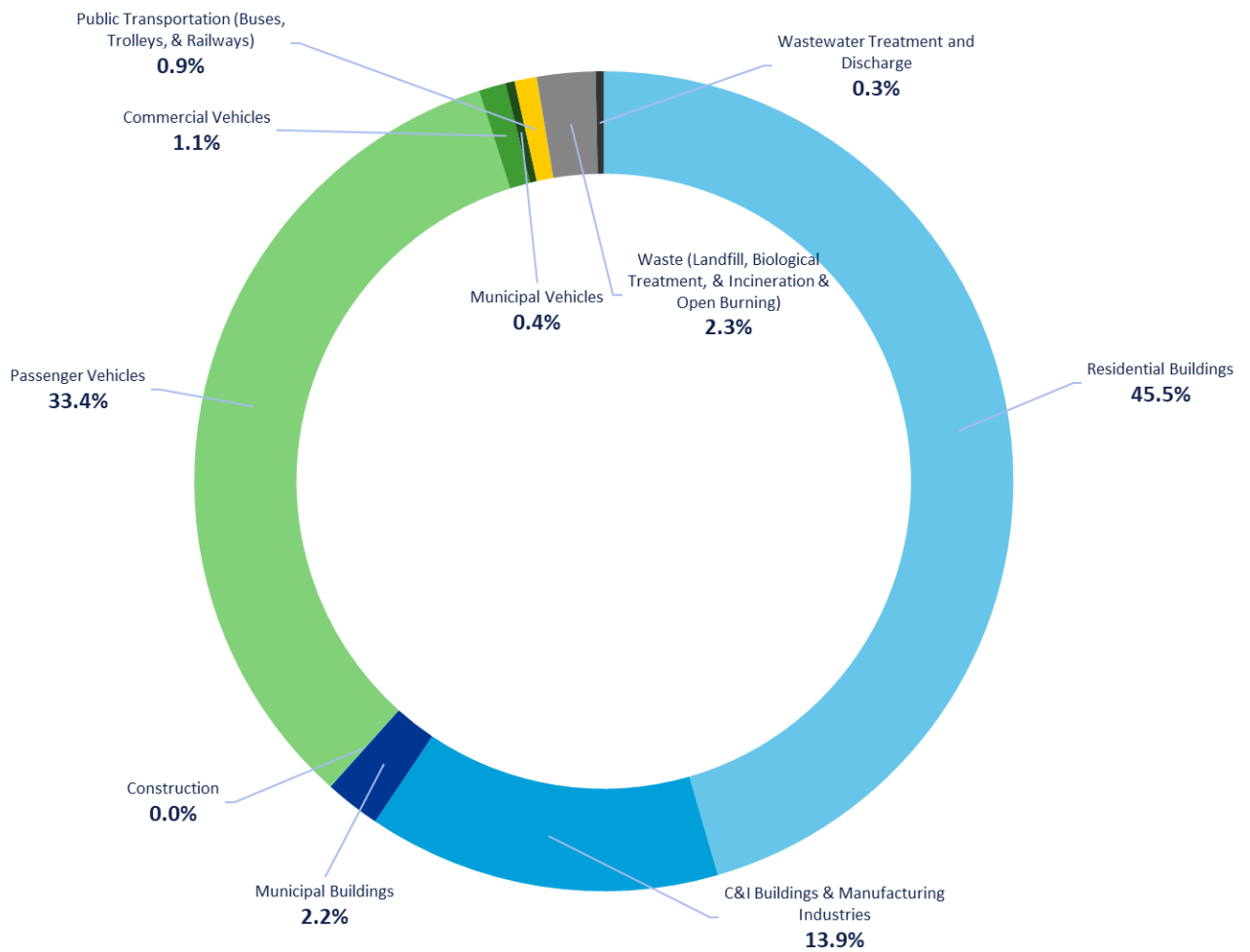
Percent of Total Building Energy Emissions by Customer Type and Fuel



Percentage of Building Energy Emissions by Source Energy



Percent of Total Community-Wide Emissions by Subsector (with Municipal Emissions Disaggregated)



Net Zero Action Plan Timeline

Municipality: Arlington

Goals (revisit from early plan outline):

- A digestible, public facing, communications tool to advance net zero action in your communities
- A guiding document that can be effective in communicating to the general public, key implementers/partners, and municipal staff and decision makers.

Questions/Decisions to Discuss:

- Are there other concurrent local planning efforts happening that may have significant virtual engagement efforts this fall? (ID opportunities to align and avoid conflict) – Housing focus groups, for example
- Are there ways, not identified below, that we can better support you? (while being mindful of budget and potential need to reallocate from support areas that may be less helpful at this time)

Community Net Zero Action Plan – Work Plan

	Municipal Staff Focus	Volunteer Committee Focus	MAPC Support Focus
June	<p>Send MAPC list of CEFC-approved GHG mitigation measures by 6/10.</p> <p>Publish baseline public input survey by 6/25</p> <p>Identify key stakeholders and decision-makers of anticipated need for input on Net Zero Plan</p>	<p>Work with municipal staff to refine and prioritize GHG mitigation measures for Net Zero Plan.</p> <p>CEFC meets 6/26</p>	<p>Draft 2-4 page “net zero play” framing section for each municipality’s Net Zero Plan.</p> <p>Administer baseline public input survey once published.</p>
July	<p>Provide notice to key stakeholders and decision-makers of anticipated request for input on Net Zero Plan.</p>	<p>Fill out details on description and action indicators for NEW GHG mitigation measures suggested by the CEFC (those not on MAPC’s original list of suggestions).</p> <p>CEFC meets 7/24</p> <p>CEFC review of revised priority action drafts in working groups (divided up by primary section)</p>	<p>Fill out details on description and action indicators for each playbook action selected</p> <ul style="list-style-type: none">• Buildings and mobility by 7/3• Zoning and permitting by 7/17• Clean energy supply by 7/31 <p>Support municipal staff on solicitation of feedback from decision makers</p> <p>Close baseline survey by 7/31</p>

August	Provide feedback on the fleshed out GHG mitigation measure sections for the Net Zero Action Roadmap and Net Zero Play section.	Draft the Letter from the Future Section Participate in a retreat to provide approval of all draft GHG mitigation measures (the “Roadmap”)	Facilitate Net Zero Action Roadmap and Implementation Retreat with CEFC Facilitate implementation working session with Ken
September	Collect feedback from additional municipal staff on the approved draft Net Zero Action Roadmap. Draft the implementation section based on discussions held in August.	Plan out series of virtual focus groups and interviews for October and November with key stakeholders and decision-makers.	Support on the development of the implementation section. Develop virtual online open house content based on priority actions.
October	Outreach and recruitment of internal and external parties to provide feedback through online open house.	Outreach and recruitment through channels and focus group partner orgs to participate in online open house. Execute focus groups and interviews – funnel feedback back to MAPC and municipal staff.	Incorporate municipal staff feedback into the draft plan. First full draft of the net zero action plan delivered for feedback. Host virtual forum to kick-off the online open house and public feedback collection.
November	Provide guidance and input on how to digest takeaways from public input.	Execute focus groups and interviews – funnel feedback back to MAPC and municipal staff.	Facilitate public input review working session with Ken. Revise plan based on public input.
December	Solidify local pathway for plan adoption in spring 2021.	Coordinate thank you notes to key partners from the engagement process.	Revised full draft of the net zero action plan delivered to municipality for adoption.